

Work Order ID 157450

Wednesday, February 22, 2017 1:29:10 PM

157450

Page 1

Item ID: D3800-3-100

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Hook And Loop Strip (1" Hard)

Start Date: 2/22/2017 Start Qty: 75.00

75

Cust Item ID:

Required Date: 3/1/2017 Req'd Qty: 75.00

75

Customer:

Reference:

Approvals: Process Plan: DAS Date: FEB 22 2017

Tooling:

Date:

Run Start ***NR1***QC: 21

Date: SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3800	Rev B								

100

0.00

100

Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: 35412Purchase Part Number: 9776K97 (5FT), 9776K113(10FT), 9776K13(15FT),
9776K23(30FT), 9776K117 (50FT), 9776K33(75FT), 9776K93(combination
pack)

Supplier: McMASTER CARR Certificate of conformity is required

75 FEB 24 2017DAS
13
9-89

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.25

Packaging

Ensure Material Release Note is attached

75 8017-02-27

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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Page 2

Item ID: D3800-3-100

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

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Start Date: 2/22/2017 Start Qty: 75.00

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Cust Item ID:

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00				75			DAS 38 3-89
Quality Control									FEB 28 2017
130	Identify as per dwg & Stock Location: <u>S149</u>	0.00							
130									
Packaging	Memo	0.13				75			DAS 6 3-89
Packaging									MAR 01 2017
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	1.25							DAS 21 9-89
Quality Control									MAR 02 2017

DAS
21
9-89
MAR 02 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

Wednesday, February 22, 2017 1:29:13 PM

Page 1 / 1

Work Order ID: 157450

157450

Parent Item: D3800-3-100

D3800-3-100

Parent Item Name: Hook And Loop Strip (1" Hard)

Start Date: 2/22/2017

Required Date: 3/1/2017

Start Qty: 75.00

Required Qty: 75.00

Comments: IPP Rev:A 08-10-21 revB as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
9776K33 *9776K33* Hook And Loop Strip 1"		Purchased	No			100	f	0.0000	1	75			
									**	75 - Sp 17-02-2			

DQA: _____ Date: _____



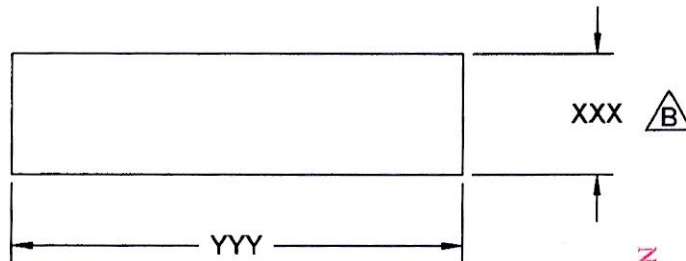
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

SPECIFICATION CONTROL DRAWING



DESCRIPTION: HOOK AND LOOP STRIP WITH ADHESIVE BACK

SPECIFICATION: D3800-1-XXX-YYY LOOP STRIP (ie. SOFT VELCRO STRIP) B
 D3800-3-XXX-YYY HOOK STRIP (ie. HARD VELCRO STRIP)

WHERE 'XXX' IS WIDTH IN HUNDREDTHS OF AN INCH
 AND 'YYY' IS LENGTH IN TENTHS OF AN INCH

EG. 1" WIDE BY 2.5" LONG LOOP STRIP = D3800-1-100-025
 2" WIDE BY 10.0" LONG HOOK STRIP = D3800-3-200-100

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 157450
 1702-20

PART NUMBER	WIDTH	PURCHASE
D3800-1-100-YYY LOOP STRIP	1.0	McMASTER CARR P/N: 9776K122, 9776K126, 9776K18, 9776K28, 9776K131, 9776K38
D3800-3-100-YYY HOOK STRIP	1.0	McMASTER CARR P/N: 9776K97, 9776K113, 9776K13, 9776K23, 9776K117, 9776K33
D3800-1-100-YYY & D3800-3-100-YYY (PURCHASED AS COMBINATION PACK)	1.0	McMASTER CARR P/N: 9776K72, 9776K76, 9776K79, 9776K84, 9776K88, 9776K93
D3800-1-200-YYY LOOP STRIP	2.0	McMASTER CARR P/N: 9776K123, 9776K127, 9776K19, 9776K29, 9776K132, 9776K39
D3800-3-200-YYY HOOK STRIP	2.0	McMASTER CARR P/N: 9776K98, 9776K114, 9776K14, 9776K24, 9776K118, 9776K34
D3800-1-200-YYY & D3800-3-200-YYY (PURCHASED AS COMBINATION PACK)	2.0	McMASTER CARR P/N: 9776K73, 9776K77, 9776K81, 9776K85, 9776K89, 9776K94

NOTES:

- 1) MATERIAL: WOVEN NYLON HOOK AND LOOP WITH ADHESIVE BACK
 BEIGE COLOR
 ACCEPTABLE SUPPLIERS PER ABOVE TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

RELEASED

B	ADD 1" WIDTH OPTION, "XXX-YYY" WAS "XXX", ADD ADDITIONAL McMASTER PART NUMBERS	CP	08.09.09
A	NEW ISSUE	CP	08.06.18
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>GP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>GP</i>		
CHECKED	<i>PH</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>E</i>	D3800	SHEET 1 OF 1
APPROVED	<i>MP</i>	TITLE	SCALE
DE APPR.	<i>MP</i>	HOOK AND LOOP STRIP	NTS
DATE	08.09.09	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :						
Misidentified	☐	Past Due	☐							



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35412

Purchase Order Date 2/24/2017

PO Print Date 2/24/2017

Page Number 1 of 5

Order From :
MCMASTER-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

VU-MCM001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FEB 24 2017

E-MAILED

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	330 995 5500	Customer POID	
		Customer Tax #	10127-2607
Ship To Contact		Terms	Net 10
Ship To Phone		Currency	USD
Ship Via:	Purolator ground ppd	FOB	FCA - (Free Carrier)
Ship Acct:			

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	92311A639 AS PER DWG D2747 REV. B B157262	SS SET SCREW	2/28/2017 Yes 2/28/2017		100.00 Each	\$0.66	\$66.19
Line Total:							\$66.19
2	6605K56 AS PER DWG D3551 REV. A B157199	HOOK AND LOOP TIE	2/28/2017 Yes 2/28/2017		15.00 Each	\$2.94	\$44.16
Line Total:							\$44.16
3	9776K33 AS PER DWG D3800 REV. B B157450	Hook And Loop Strip 1"	2/28/2017 Yes 2/28/2017		75.00 f	\$1.17	\$87.87

Note:

2/24/2017

SP 17-02-27



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO35412

Order Placed By
Chantal Lavoie

McMaster-Carr Number
7570662-02

Page 1 of 1

02/24/2017

Line	Product	Ordered	Shipped
1	92311A639 18-8 Stainless Steel Cup Point Set Screw 3/8"-24 Thread, 1" Long, Packs of 10	10 Packs	10
2	6605K56 Hook and Loop Cable Ties 24" Overall Length, Meets UL 94V2, Packs of 5	3 Packs	3
3	9776K33 1" Wide x 75' Long Hook, Adhesive Back, Beige	1 Each	1
4	6718K52 303 Stainless Steel Industrial-Shape Air Hose Coupling Plug, 1/4 Coupling Size, 1/4 NPTF Female End	12 Each	12
5	7263T82 Graduated Glass Flask 8.5 oz./ 250 ml Capacity, 3" Diameter, Deliver To: Gary	2 Each	2
6	6057K114 BX-Section Cogged V-Belt BX34 Trade Size, 37" Outer Circle, Deliver To: Luc	1 Each	1
7	6057K225 BX-Section Cogged V-Belt BX39 Trade Size, 42" Outer Circle, Deliver To: Luc	1 Each	1
8	2742A513 Countersink for Aluminum, Brass, and Bronze 3-Flute, 100 Degree Angle, 1/2" Body Diameter, 1/4" Shank Diameter	4 Each	2
9	4526A13 Hand-Held Grinding Wheel Cleaner with Spiral Cutters, for Smooth Surface, 2-3/8" Head Width, Deliver To: Dan P	1 Each	1
10	4530A1 Spur Cutter for Hand-Held Grinding Wheel Cleaner, with 1-1/2" Wide Head, Deliver To: Dan P	1 Each	1
12	8947A141 118 Degree Point High-Speed Steel Short-Length Drill Bit Bright Finish, 31/64", 3-11/16" Overall Length, Deliver To: Dan P	2 Each	2
13	3096A319 High-Speed Steel Extended-Reach Drill Bit Black Finish, Wire Gauge #9, 3.33" Drill Depth, Deliver To: Dan P	2 Each	2

SP17-02-07

DAS
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9-89

Shipped separately from our Chicago warehouse on 02/24

8	2742A513 Countersink for Aluminum, Brass, and Bronze 3-Flute, 100 Degree Angle, 1/2" Body Diameter, 1/4" Shank Diameter	4 Each	2
11	2848A42 Keyless Drill Chuck 0-3/8" Capacity, 3/8"-24 Thread Mount	1 Each	1